Sodium Thiocyanate Solution 50% Bisley International LLC

Chemwatch: **4929-52** Version No: **5.1.4.5**

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 01/11/2019 Print Date: 11/06/2021 S.GHS.USA.EN

SECTION 1 Identification

| Product Identifier | | |
|-------------------------------|---------------------------------|--|
| Product name | Sodium Thiocyanate Solution 50% | |
| Chemical Name | Not Applicable | |
| Synonyms | Not Available | |
| Chemical formula | Not Applicable | |
| Other means of identification | Not Available | |

Recommended use of the chemical and restrictions on use

| Relevant identified uses | Lise according to manufacturer's directions |
|--------------------------|---|
| | |

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

| Registered company name | Bisley International LLC |
|-------------------------|--|
| Address | 1790 Hughes Landing Boulevard Suite 400 The Woodlands TX 77380 United States |
| Telephone | +1 (844) 424 7539 |
| Fax | Not Available |
| Website | www.bisley.biz |
| Email | compliance@bisley.biz |

Emergency phone number

| Association / Organisation | Bisley International LLC | CHEMWATCH EMERGENCY RESPONSE |
|-----------------------------------|--------------------------|------------------------------|
| Emergency telephone numbers | +1 855 237 5573 | +61 2 9186 1132 |
| Other emergency telephone numbers | +61 2 9186 1132 | +1 855-237-5573 |

Once connected and if the message is not in your prefered language then please dial 01

Una vez conectado y si el mensaje no está en su idioma preferido, por favor marque 02

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

Considered a Hazardous Substance by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Not classified as Dangerous Goods for transport purposes.

NFPA 704 diamond

| \checkmark | |
|--------------|--|

Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)



H302 Harmful if swallowed.

Hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

| P264 | Wash all exposed external body areas thoroughly after handling. |
|------|---|
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |

Precautionary statement(s) Response

| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | |
|----------------|--|--|
| P337+P313 | 7+P313 If eye irritation persists: Get medical advice/attention. | |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. | |
| P330 | Rinse mouth. | |

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|--------|--|
| F 30 I | Dispose of contents/container to authorised hazardous of special waste conection point in accordance with any local regulation |

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|-----------|-----------|--------------------|
| 540-72-7 | 50 | sodium thiocyanate |
| 7732-18-5 | 50 | water |

SECTION 4 First-aid measures

Description of first aid measures

| Eye Contact | If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
|--------------|---|
| Skin Contact | If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. |
| Inhalation | If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary. |
| Ingestion | If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice. |

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

For thiocyanate poisonings haemodialysis is recommended as the treatment of choice. Phenobarbital protects poisoned animals against death. Thiocyanate ion is slowly excreted in the urine and is not decomposed to any appreciable degree to cyanide.

[GOSSELIN, SMITH & HODGE: Clinical Toxicology of Commercial Products 5th Ed]

SECTION 5 Fire-fighting measures

Extinguishing media

There is no restriction on the type of extinguisher which may be used.

• Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

| Fire Incompatibility | None known |
|----------------------|------------|

Special protective equipment and precautions for fire-fighters

| Fire Fighting | Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. |
|-----------------------|--|
| Fire/Explosion Hazard | Non combustible. Not considered to be a significant fire risk. Expansion or decomposition on heating may lead to violent rupture of containers. Decomposes on heating and may produce toxic/ irritating fumes. |
| | Decomposes on heating and produces toxic fumes of: cyanides nitrogen oxides (NOx) sulfur oxides (SOx) |

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

| Minor Spills | Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. |
|--------------|---|
| Major Spills | Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment as required. |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

| Precautions for safe handling | | | |
|-------------------------------|--|--|--|
| Safe handling | Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. When handling DO NOT eat, drink or smoke. | | |
| Other information | Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. | | |

Conditions for safe storage, including any incompatibilities

| Suitable container | Polyethylene or polypropylene container Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. |
|-------------------------|---|
| Storage incompatibility | Segregate from acids Contact with acids produces toxic fumes |
| | |



X — Must not be stored together

0 — May be stored together with specific preventions

+ — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA Not Available

| Emergency Limits | | | | | |
|-------------------------------|---|--|--|--|--|
| Ingredient | TEEL-1 | TEEL-2 | | TEEL-3 | |
| sodium thiocyanate | 0.7 mg/m3 | 7.7 mg/m3 | | 46 mg/m3 | |
| Ingredient | Original IDLH | | Revised IDLH | | |
| sodium thiocyanate | Not Available | | Not Available | | |
| water | Not Available | | Not Available | | |
| Occupational Exposure Banding | | | | | |
| Ingredient | Occupational Exposure Band Rating | | Occupational Exposu | re Band Limit | |
| sodium thiocyanate | E | | ≤ 0.01 mg/m³ | | |
| Notes: | Occupational exposure banding is a process of a adverse health outcomes associated with expose range of exposure concentrations that are expect | assigning chemicals into ure. The output of this pr ted to protect worker he | specific categories or banc ocess is an occupational e alth. | Is based on a chemical's potency and the xposure band (OEB), which corresponds to a | |

Exposure controls

| Appropriate engineering controls | General exhaust is adequate under normal operating conditions. |
|-------------------------------------|---|
| Personal protection | |
| Eye and face protection | Safety glasses with side shields; or as required, Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. |
| Skin protection | See Hand protection below |
| Hands/feet protection | Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber |
| Body protection | See Other protection below |
| Other protection | Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. |

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| Appearance | Clear odourless liquid; mixes with water. | | | |
|---|---|--|----------------|--|
| | | | | |
| Physical state | Liquid | Relative density (Water = 1) | 1.2-1.4 | |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available | |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Applicable | |
| pH (as supplied) | Not Available | Decomposition temperature | >368 | |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available | |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol) | Not Applicable | |
| Flash point (°C) | Not Applicable | Taste | Not Available | |
| Evaporation rate | Not Available | Explosive properties | Not Available | |
| Flammability | Not Applicable | Oxidising properties | Not Available | |
| Upper Explosive Limit (%) | Not Applicable | Surface Tension (dyn/cm or mN/m) | Not Available | |
| Lower Explosive Limit (%) | Not Applicable | Volatile Component (%vol) | Not Available | |
| Vapour pressure (kPa) | 2.3 @ 20 degC | Gas group | Not Available | |
| Solubility in water | Miscible | pH as a solution (%) | 7 approx (5%) | |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available | |

SECTION 10 Stability and reactivity

| Reactivity | See section 7 |
|------------|---------------|
| | |

| Chemical stability | Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur. |
|-------------------------------------|--|
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

SECTION 11 Toxicological information

Information on toxicological effects

| Inhaled | Not normally a hazard due to non-volatile nature of product Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. |
|--------------|--|
| Ingestion | Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Probable lethal dose of thiocyanate (rhodanate), in man, is between 15 and 30 gm (ingested at one time). Several acute fatalities are recorded with death coming in 10 to 48 hours. |
| Skin Contact | Skin contact with the material may be harmful; systemic effects may result following absorption. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. |
| Eye | There is some evidence to suggest that this material can cause eye irritation and damage in some persons. |
| Chronic | Subacute or chronic poisonings by thiocyanate produce profuse discharge from the nostrils, skin rashes, weakness, fatigue, spinning sensation, nausea, vomiting, diarrhoea, confusion, disorientation and forgetfulness. |

| Sodium Thiocyanate Solution | TOXICITY | IRRITATION | |
|-----------------------------|---|---------------|--|
| 50% | Not Available | Not Available | |
| | τοχιςιτγ | IRRITATION | |
| sodium thiocyanate | dermal (rat) LD50: >2000 mg/kg ^[1] | Not Available | |
| | Oral(Rat) LD50; 232 mg/kg ^[2] | | |
| water | ΤΟΧΙΟΙΤΥ | IRRITATION | |
| | Oral(Rat) LD50; >90000 mg/kg ^[2] | Not Available | |
| Legend: | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances | | |

| SODIUM THIOCYANATE | Flaccid paralysis, parasympathomimetic changes, tremor, excitement, muscle contraction, dyspnae, respiratry stimulation, nausea and vomiting recorded. Goitrogenic: Goitrogens are substances that suppress the function of the thyroid gland by interfering with iodine uptake, which can, as a result, cause an enlargement of the thyroid (a goitre). Goitrogens include: Vitexin, a flavonoid, which inhibits thyroid peroxidase, contributing to goitre Thiocyanate and perchlorate, which decrease iodide uptake by competitive inhibition and consequently increase release of TSH from the pituitary gland Lithium, which inhibits thyroid hormone release Certain foods, such as soy and millet (containing vitexins) and vegetables in the genus Brassica (which includes broccoli, Brussels sprouts, cabbage, cauliflower and horseradish). Caffeine (found in coffee, tea, cola and chocolate), which acts on thyroid function as a suppressant. | | | |
|--------------------------------------|--|-----------------------------|--|--|
| WATER | No significant acute toxicological data identified in literature search. | | | |
| | | | | |
| Acute Toxicity | ✓ | Carcinogenicity | × | |
| Skin Irritation/Corrosion | × | Reproductivity | × | |
| Serious Eye Damage/Irritation | × | STOT - Single Exposure | × | |
| Respiratory or Skin sensitisation | × | STOT - Repeated Exposure | × | |
| Mutagenicity | × | Aspiration Hazard | × | |
| | | Legend: 🗙 – Data either not | t available or does not fill the criteria for classification | |

— Data available to make classification

SECTION 12 Ecological information

Toxicity

| | Endpoint | Test Duration (hr) | Species | Value | Source |
|------------------------------------|------------------|--------------------|---------------|------------------|------------------|
| Sodium Thiocyanate Solution 50% | Not Available | Not Available | Not Available | Not Available | Not Available |

| | Endpoint | Test Duration (hr) | Species | Value | Source |
|----------------------------------|---|--------------------|-------------------------------|------------------|------------------|
| NOEC(sodium thiocyanate EC50 | NOEC(ECx) | 504h | Crustacea | 1.25mg/l | 2 |
| | EC50 | 72h | Algae or other aquatic plants | 47mg/l | 2 |
| | LC50 | 96h | Fish | 0.46mg/l | 2 |
| | EC50 | 48h | Crustacea | 3.56mg/l | 2 |
| | Endpoint | Test Duration (br) | Species | Value | Source |
| water | Not Available | Not Available | Not Available | Not Available | Not Available |
| Legend: | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite | | | | |

d: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

DO NOT discharge into sewer or waterways.

Prevent, by any means available, spillage from entering drains or water courses.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|---------------------------|-------------------------|------------------|
| water | LOW | LOW |
| | | |
| Dioaccumulative potential | | |

| Ingredient | Bioaccumulation |
|------------------|---------------------------------------|
| | No Data available for all ingredients |
| Mobility in soil | |
| Ingredient | Mobility |
| | No Data available for all ingredients |

| SECTION 13 | Disposal | considerations |
|------------|----------|----------------|

| Waste treatment methods | | |
|------------------------------|--|--|
| Product / Packaging disposal | Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill. | |
| | | |

SECTION 14 Transport information

| Labels Required | |
|------------------|----|
| Marine Pollutant | NO |
| | |

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

| Product name | Pollution Category | Ship Type |
|---|--------------------|-----------|
| Sodium thiocyanate solution (56% or less) | Y | 3 |

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|--------------------|---------------|
| sodium thiocyanate | Not Available |
| water | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|--------------------|---------------|
| sodium thiocyanate | Not Available |
| water | Not Available |
| | |

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

sodium thiocyanate is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs) US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory US TSCA Chemical Substance Inventory - Interim List of Active Substances

water is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories

| Flammable (Gases, Aerosols, Liquids, or Solids) | |
|--|-----|
| Gas under pressure | No |
| Explosive | No |
| Self-heating | No |
| Pyrophoric (Liquid or Solid) | No |
| Pyrophoric Gas | No |
| Corrosive to metal | No |
| Oxidizer (Liquid, Solid or Gas) | No |
| Organic Peroxide | No |
| Self-reactive | No |
| In contact with water emits flammable gas | No |
| Combustible Dust | No |
| Carcinogenicity | No |
| Acute toxicity (any route of exposure) | Yes |
| Reproductive toxicity | No |
| Skin Corrosion or Irritation | No |
| Respiratory or Skin Sensitization | No |
| Serious eye damage or eye irritation | No |
| Specific target organ toxicity (single or repeated exposure) | No |
| Aspiration Hazard | No |
| Germ cell mutagenicity | No |
| Simple Asphyxiant | No |
| Hazards Not Otherwise Classified | No |
| | |

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

State Regulations

US. California Proposition 65

None Reported

National Inventory Status

| National Inventory | Status |
|--|--|
| Australia - AIIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | Yes |
| Canada - NDSL | No (sodium thiocyanate; water) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | Yes |
| Japan - ENCS | Yes |
| Korea - KECI | Yes |
| New Zealand - NZIoC | Yes |
| Philippines - PICCS | Yes |
| USA - TSCA | Yes |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | Yes |
| Vietnam - NCI | Yes |
| Russia - FBEPH | Yes |
| Legend: | Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

SECTION 16 Other information

Revision Date 01/11/2019

Initial Date 02/05/2005

SDS Version Summary

| Version | Date of Update | Sections Updated |
|---------|----------------|--|
| 3.1.2.1 | 29/01/2010 | Classification |
| 5.1.2.1 | 01/11/2019 | One-off system update. NOTE: This may or may not change the GHS classification |
| 5.1.3.1 | 10/05/2021 | Regulation Change |
| 5.1.4.1 | 24/05/2021 | Regulation Change |
| 5.1.4.2 | 30/05/2021 | Template Change |
| 5.1.4.3 | 04/06/2021 | Template Change |
| 5.1.4.4 | 05/06/2021 | Template Change |
| 5.1.4.5 | 09/06/2021 | Template Change |

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.